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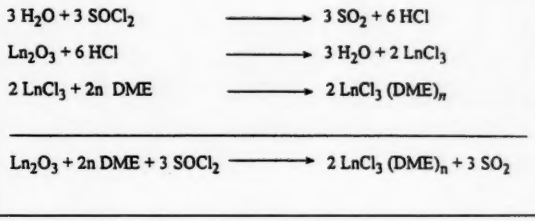

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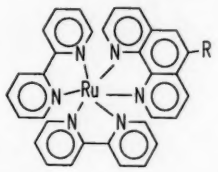

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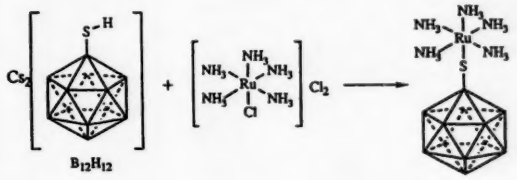

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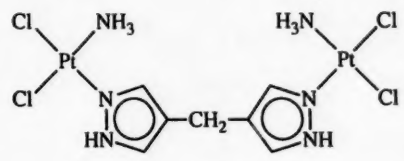

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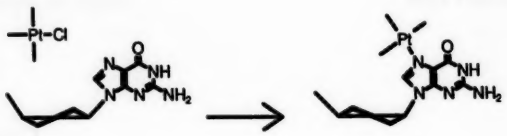

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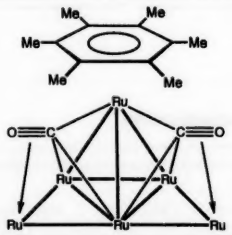

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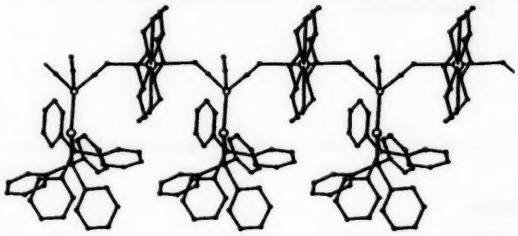

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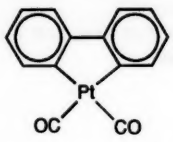

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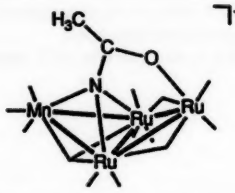

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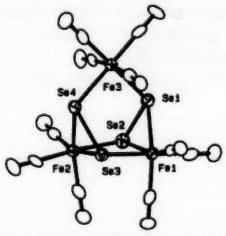

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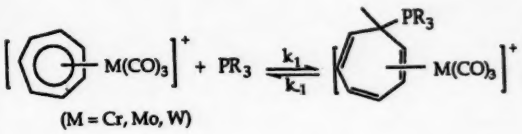

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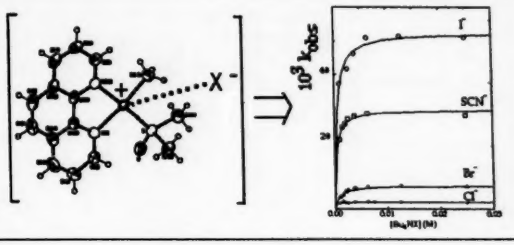

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hs + sh = hh + ss 0<ΔE

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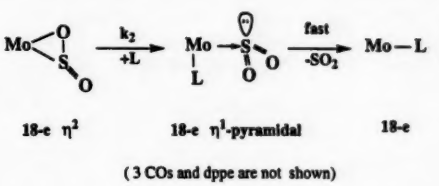

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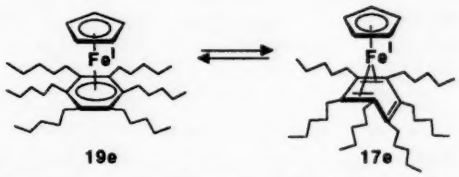

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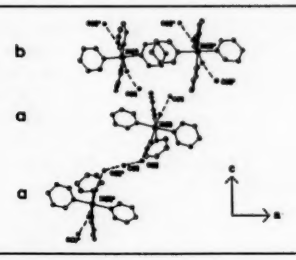

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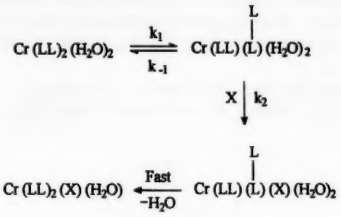

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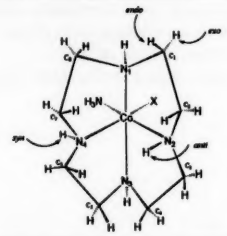

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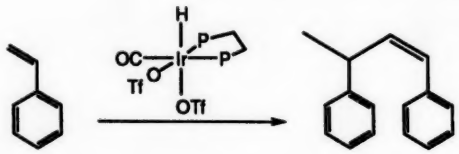

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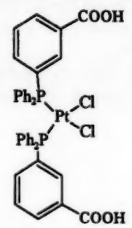

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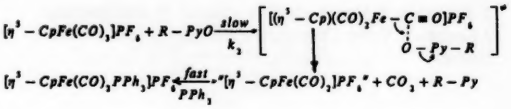

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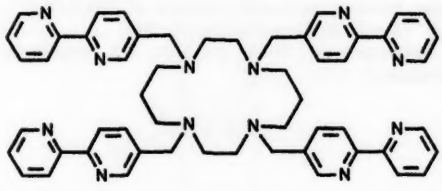

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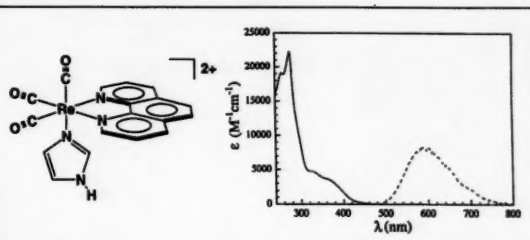

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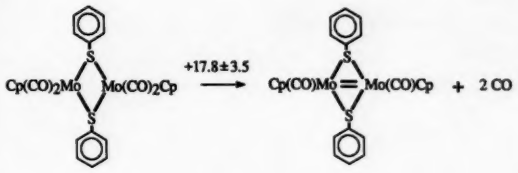

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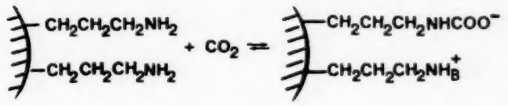

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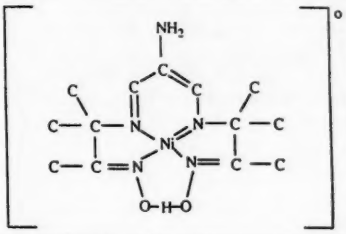

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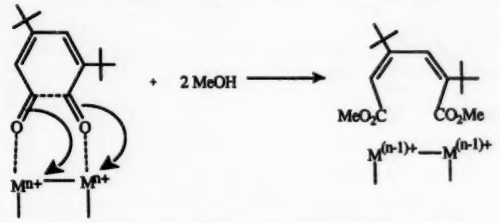

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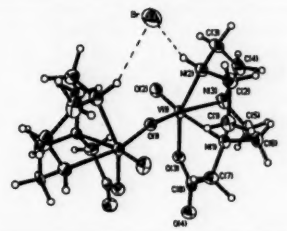

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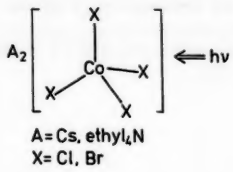

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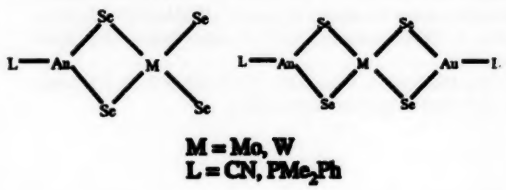

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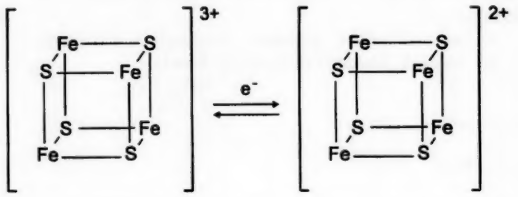

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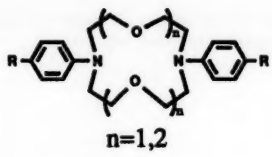

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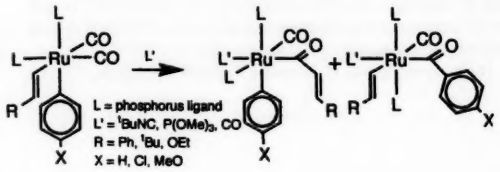

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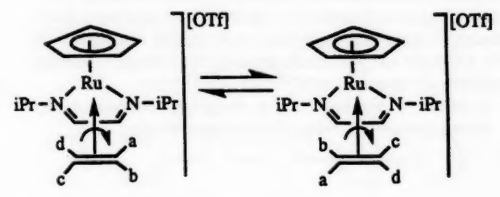

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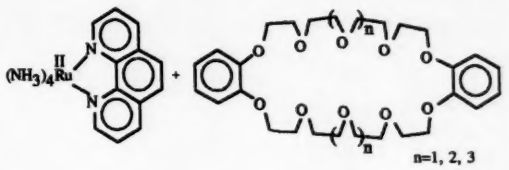

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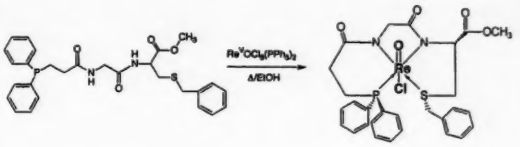

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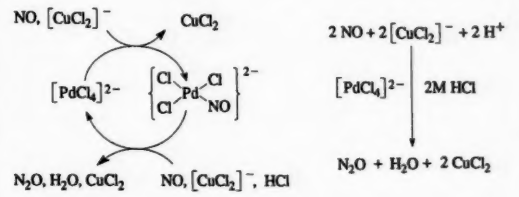

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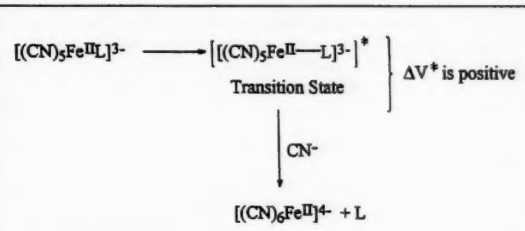

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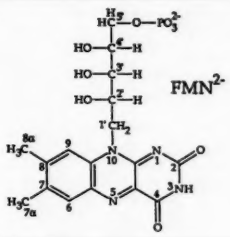

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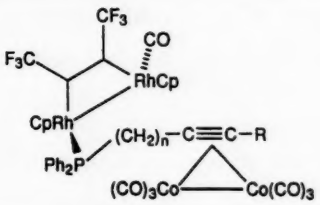

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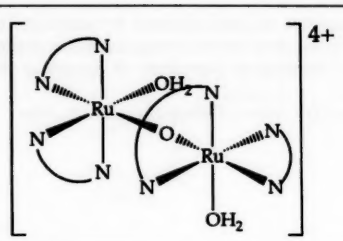

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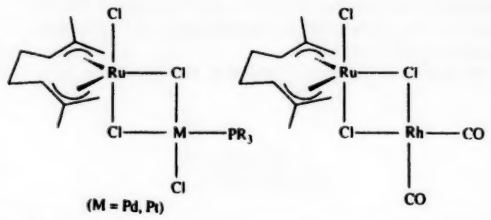

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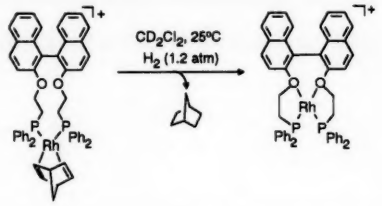

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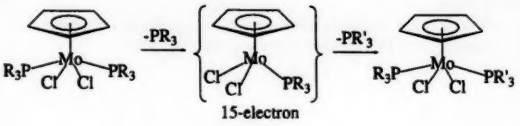

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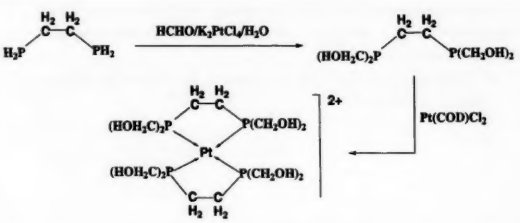

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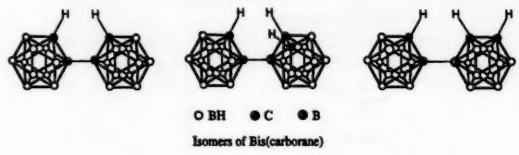

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$$Ta(CO)_5]^{3-} \xrightarrow[-H_2]{2NH_4^+} [Ta(CO)_5NH_3]^-$$

$$[Ta(CO)_5NH_3]^- \xrightarrow[-NH_3]{L,\ -60°C\ to\ +20°C} [Ta(CO)_5L]^z$$

Z = -1, L = CNR, PR_3, $P(OR)_3$, AsR_3, SbR_3
Z = -2, L = CN^-. YIELDS: 50-80%

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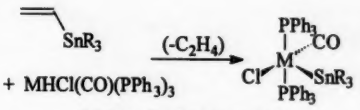

(M=Ru, Os; R=Me, *n*-Bu)

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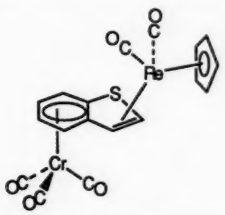

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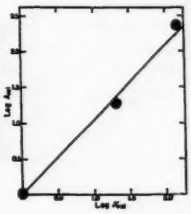

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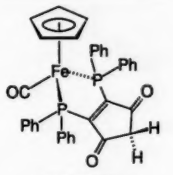

CpFe(CO)L_2'
an 18+δ electron complex

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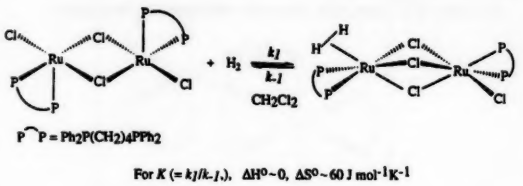

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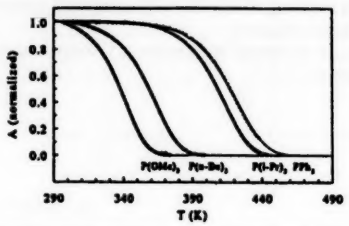

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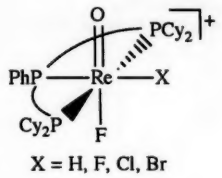

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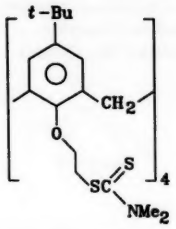

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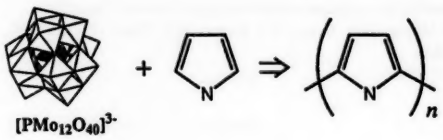

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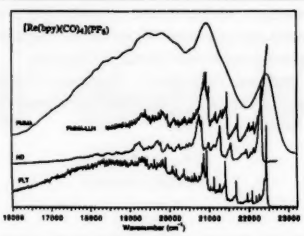

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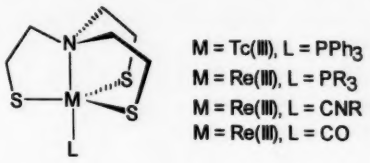

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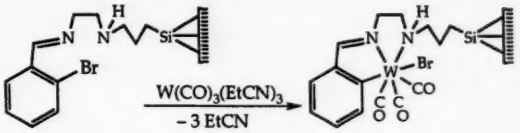

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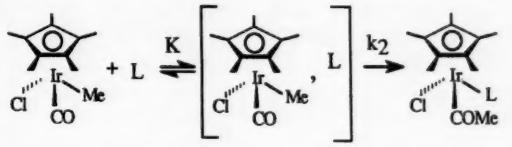

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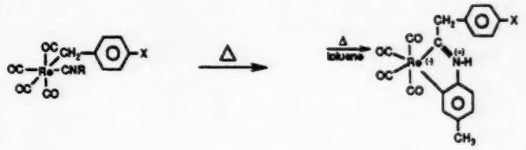

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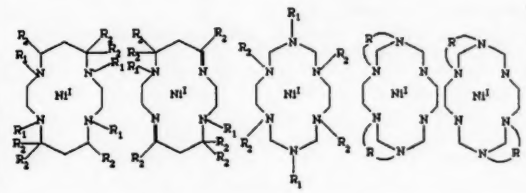

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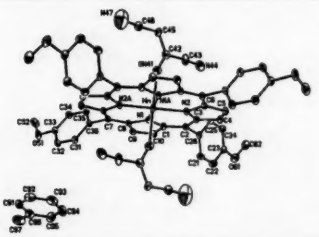

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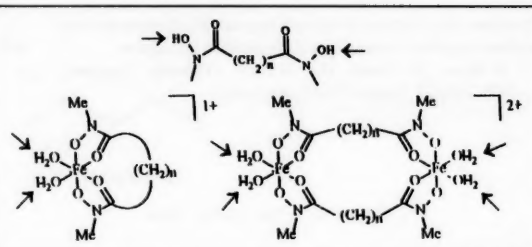

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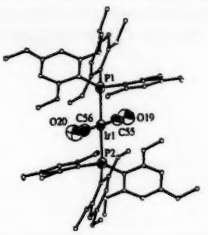

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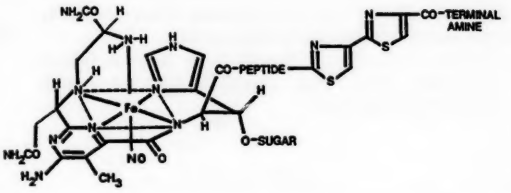

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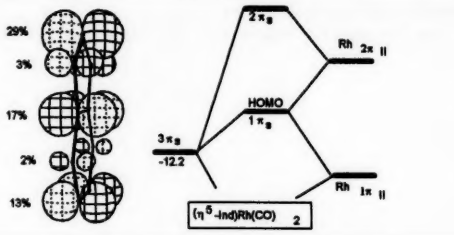

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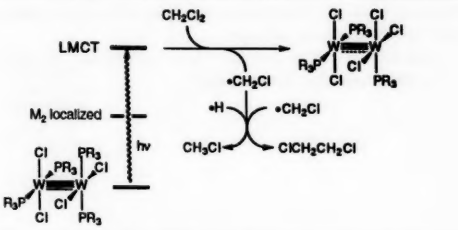

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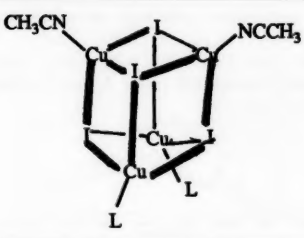

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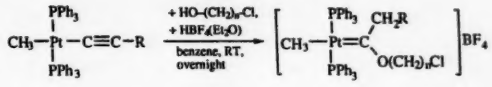

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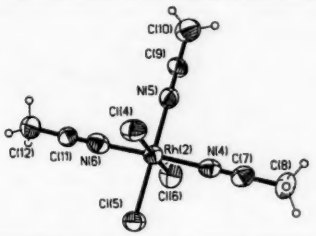

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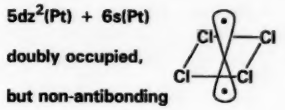

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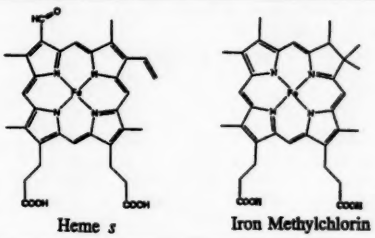

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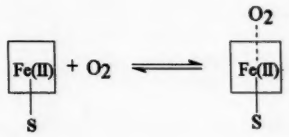
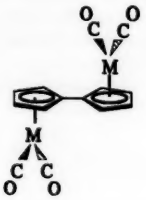
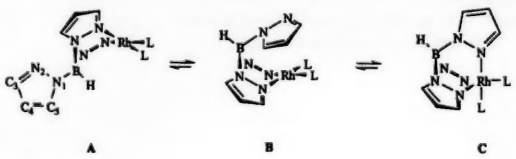
S.K. Dhar (Chicago, IL, USA)



Carbonyl ligand substitution at rhodium in the heterometallic cluster $[PPN]_2[Re_7C(CO)_{21}Rh(CO)_2]$. A reactivity comparison with mononuclear $(\eta^5\text{-}C_5H_5)Rh(CO)_2$ and related compounds ..... 615 S.F. Ralph, S.W. Simerly, J.R. Shapley (Urbana, IL, USA)	$\{Re_7\}Rh(CO)_2 + L \rightarrow \{Re_7\}Rh(CO)(L) + CO$ $\{Re_7\} = [Re_7C(CO)_{21}]^{2-}$
Ligand-mediated metal–metal interactions in $(\eta^5:\eta^5$-fulvalene)-bis(dicarbonylcobalt) and rhodium complexes ..... 623 D.L. Lichtenberger, N.E. Gruhn, M.E. Rempe (Tucson, AZ, USA), W.E. Geiger, T.T. Chin (Burlington, VT, USA)	
Rhodium(I) complexes of the type $[Tp^{3R,5R}Rh(LL)]$ (LL = 2CO, NBD, COD) with trifluoromethyl substituted tris(pyrazolyl)borate ligands and their dynamic behaviour in solution. The X-ray crystal structure of $Tp^{CF_3,Me}Rh(CO)_2$ ..... 631 E. Del Ministro, O. Renn, H. Rüegger, L.M. Venanzi, U. Burckhardt, V. Gramlich (Zurich, Switzerland)	 A B C
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Photocatalyzed isomerization of 1-pentene by $Ru_3(CO)_{12}$ adsorbed onto porous Vycor glass ..... 645 H.D. Gafney, S.-P. Xu (Flushing, NY, USA)	$HRu_3(CO)_{10}(OSi)(1\text{-}C_5H_{10}) + h\nu \longrightarrow (\mu\text{-}H)Ru_3(CO)_{10}(\mu\text{-}OSi) + 2\text{-pentene}$

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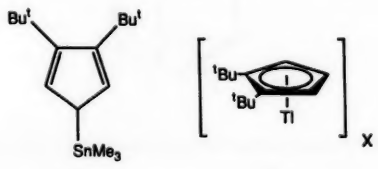
Tin and thallium reagents for transfer of the 1,2-di-tert-butylcyclopentadienyl ligand to transition metals ..... 653 R.P. Hughes, J.R. Lomprey (Hanover, NH, USA)	 2 4

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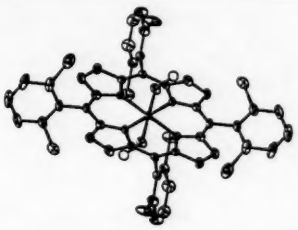

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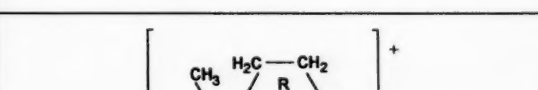

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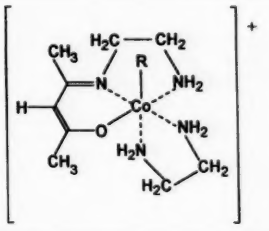

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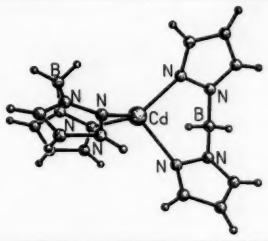

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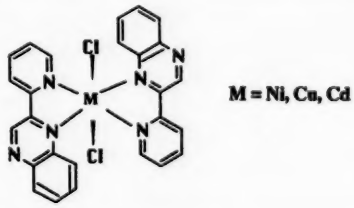

M = Ni, Cu, Cd

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